AN VIAL REPORT

OF THE

DEPARTMENT OF SANITATION

OF THE

ISTHMIAN CANAL COMMISSION

1912

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## REPORT

OF THE

# DEPARTMENT OF SANITATION

OF THE

# ISTHMIAN CANAL COMMISSION

FOR THE

**YEAR 1912** 

W. C. GORGAS

Colonel, Medical Corps, United States Army Chief Sanitary Officer, Ancon, Canal Zone

> WASHINGTON 1913







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## LETTER OF TRANSMITTAL.

Isthmian Canal Commission,
Department of Sanitation,
Ancon, Canal Zone, January 18, 1913.

To the Chairman and Chief Engineer, Isthmian Canal Commission, Culebra, Canal Zone.

Sir: I have the honor to submit the following report of the

department of sanitation for the calendar year 1912.

Statistics as to the death rate among employees of the Isthmian Canal Commission and Panama Railroad Co. for the calendar year just closed, compared with similar figures for previous years since 1904, are as follows:

	Number of employees.	Deaths.	Rate.
1904	6, 213	82	13. 26
1905	16, 512	427	25. 86
1906	26, 547	1, 105	41. 73
1907	39, 238	1, 131	28. 74
1908	43, 891	571	13. 01
1909	47, 167	502	10. 64
1910	50, 802	558	10. 98
1911	48, 876	539	11. 02
1912	50, 893	467	9. 18

The death rate among our white employees from the United States from disease was 3.25 per thousand, while the total death rate for the year for this class of employees was 5.52, as against 5.14 per thousand in 1911. If we include American women and children, it will raise the death rate of Americans from disease to 4.22. Including in the above figures the officers and men of the United States Army and Marine Corps stationed on the Canal Zone and their families, the death rate from disease is lowered to 3.86 per thousand. The death rate from disease in our Army for the calendar year 1911 was 2.66 per thousand.

Taking special diseases, the deaths among our employees have

been:

	1905	1906	1907	1908	1909	1910	1911	1912
Typhoid fever. Dysentery. Pneumonia. Malaria.	12 14 95 86	42 69 413 233	98 48 328 154	19 16 93 73	13 8 70 52	13 21 73 50	10 13 94 47	4 7 57 20

The improved conditions as regards deaths from malaria among our employees continue, and the same is true of the admission rate to hospitals, as is shown by the following table:

	rer 1,000.
1904	 
1905	 514
1906	 
1907	 424
1908	 282
1909	 215
1910	 187
1911	 
1912	 110

Deaths among our employees from the other principal diseases were as follows: Abscess of liver, 4; nephritis, acute and chronic, 36; from all forms of tuberculosis, 70; leaving 126 deaths among employees from all other diseases, and 143 deaths from external violence.

Considering the death rate of the total population, including the cities of Panama and Colon and the Canal Zone, we find the rates

for the different years to be as follows:

for the different years to be as forcers.	Rate per	1,000.
1905		49.94
1906		48.31
1907. 1908.		33.03
1908. 1909.		18. 19
1910.		21.18
1911		21.46
1912		20.49

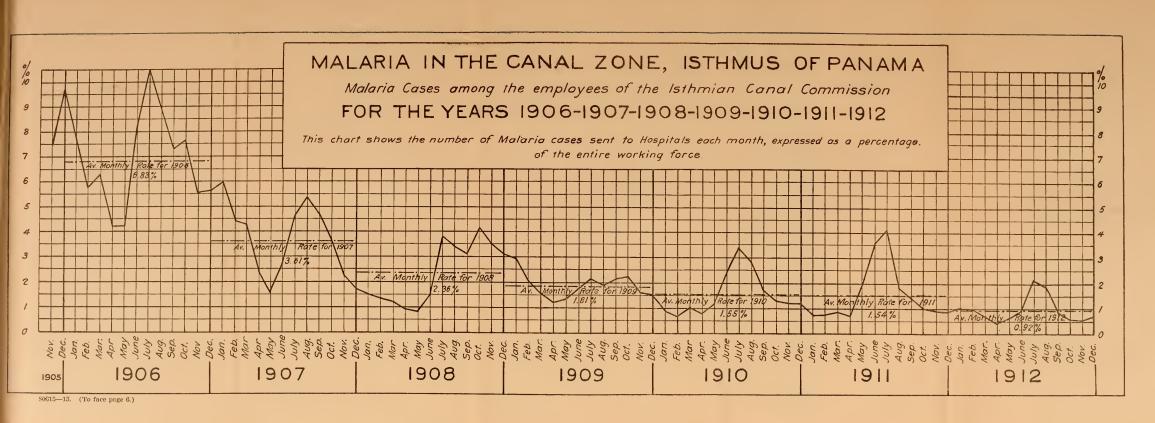
One case of yellow fever, on a ship from Guayaquil, Ecuador, was isolated in Santo Tomas Hospital, and died there on July 14.

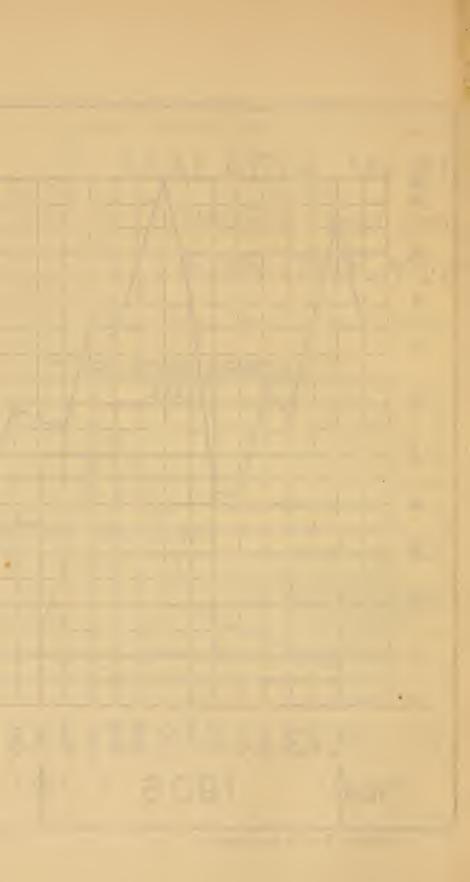
With this exception, no cases of yellow fever, plague, or smallpox

occurred on the Isthmus during the year.

Appended hereto is a chart showing the percentage of malarial cases admitted to hospitals for each month since November, 1905. Very respectfully,

W. C. GORGAS, Chief Sanitary Officer.





# ANNUAL REPORT OF THE DEPARTMENT OF SANITATION, ISTHMIAN CANAL COMMISSION.

#### FOR THE YEAR 1912.

#### VITAL STATISTICS.

DEATHS OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION AND PANAMA RAILROAD CO.

Color.	Average number of em- ployees.	Total n	umber o	f deaths	Annual death rate per 1,000—		
		Dis- ease.	Vio- lence.	All causes.	Dis- ease.	Vio- lence.	All causes.
White Colored	12,553 38,340	58 266	43 100	101 366	4.62 6.94	3.43 2.61	8.05 9.55
Total	50,893	324	143	467	6.37	2.81	9.18

DEATHS IN THE CITIES OF PANAMA AND COLON AND THE CANAL ZONE.

Place.	Population.	Deat <b>hs.</b>	Annual average per 1,000.
Panama Colon Canal Zone	47,057 20,174 79,279	1,380 493 1,129	29.33 24.44 14.24
Total	146,510	3,002	20.49

Note.—The figures relating to the number of employees are compiled from the pay rolls of the different months of the year.

The population and deaths as given for the cities of Panama, Colon, and the Canal Zone include employees and civil population.

## DEATHS BY AGE, COLOR, AND SEX.

1 70	White.		Colored.		Yellow.			Total.				
Age.	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.
Under 1 year	26	9	35 7 14 87 68 53 35 16 8	25 73 359 218 175 75 35 11 4	336 102 26 45 151 111 63 35 23 17 3 2 1 6	785 216 51 118 510 329 238 110 58 7 2 1 44	8 6 4 4 2	1 1	2 1 1 2 9 6 4 4 2 1	533 135 30 84 436 274 223 105 49 19 5	27 18 5 2 1	924 252 59 134 606 403 295 149 76 37 10 2
Total	334	139	473	1,576	921	2,497	29	3	32	1,939	1,063	3,002

#### DEATHS BY NATIONALITY.

Antigua       12       15         Austria       1       1         Bahama Islands       2         Barbados       101       272         Bavaria       1       1         Bolivia       1       1         China       28       1         China       28       2         Colombia       9       117         Costa Rica       8       8         Cuba       10       1         Curaeao       1       1         Curaeao       1       1         Denmark       1       1         Dominica       1       1         England       1       1         Finland       1       9         Finland       1       9         France       1       10         Germany       1       2         Greece       6       5         Grenada       16       23         Guadeloupe       6       14         Guiana, British       3       3         Grand Cayman       1       1         Haiti       3       10         Holland <td< th=""><th>N</th><th>fations.</th><th>Employees.</th><th>Non- employees.</th><th>Total.</th></td<>	N	fations.	Employees.	Non- employees.	Total.
Barbados         101         272           Bavaria         1         1           Bolivia         1         1           Chile         3         3           China         28         6           Colombia         9         117           Costa Rica         8         6           Cuba         10         1           Curacao         1         1           Demerara         5         7           Denmark         1         1           Dominica         1         1           Ecuador         6         6           England         1         9           Finland         1         9           Finland         1         9           Finland         1         9           Finland         1         2           Germany         1         2           Greeee         6         5           Grenada         16         23           Guadeloupe         6         14           Guiana, British         3         3           Grand Cayman         1         2           Holland         1 <td>ustria</td> <td></td> <td></td> <td>15</td> <td>27</td>	ustria			15	27
Bolivia         1           Chile         3           China         28           Colombia         9         117           Costa Rica         8           Cuba         10           Curaeao         1         1           Demerara         5         7           Denmark         1         1           Deminica         1         1           Ecuador         6         6           England         1         9           Finland         1         9           Finland         1         9           Finland         1         9           Finland         1         2           Germanee         1         10           Germanee         1         10           Greece         6         5           Greenada         16         23           Guadeloupe         6         14           Guiana, British         3         3           Grand Cayman         1         2           Holland         1         2           Holland         1         2           India         5	arbados		101	272	2 373 1
Colombia         9         117           Costa Rica         8           Cuba         10           Curacao         1           Demerara         5         7           Denmark         1         1           Dominica         1         1           Ecuador         6         6           England         1         9           Finland         1         9           Finland         1         9           Finland         1         9           Finland         1         1           Fortune Islands         7         1           France         1         10           Germany         1         2           Greece         6         5           Grenada         16         23           Guadeloupe         6         14           Guiana, British         3         3           Grand Cayman         1         1           Hatti         3         10           Holland         1         2           India         5         1           Ireland         1         1           I	olivia			3	1
Cuba.         10           Curaeao         1           Demerara         5           Denmark         1           Dominica         1           Ecuador         6           England         1           Finland         1           Fortune Islands         7           Franee         1           Germany         1           Greeee         6           Greada         16           Guadeloupe         6           Guana, British         3           Grand Cayman         1           Haiti         3           Holland         1           Holland         1           Ireland         1           Italy         6	olombia			117	126 126
Denmark         1           Dominica         1           Ecuador         6           England         1           Finland         1           Fortune Islands         7           Franee         1           Germany         1           Greeee         6           Grenada         16           Guadeloupe         6           Guiana, British         3           Grand Cayman         1           Haiti         3           Holland         1           India         5           India         5           Ireland         1           Italy         6           9	uba			10	10
Ecuador         6           England         1         9           Finland         1         1           Fortune Islands         7         1           France         1         10           Germany         1         2           Greece         6         5           Grenada         16         23           Guadeloupe         6         14           Guiana, British         3         3           Grand Cayman         1         1           Haiti         3         10           Holland         1         2           Ilonduras         1         2           India         5         1           Ireland         1         1           Italy         6         9	enmark		. 1	7	15 1
Finland         1           Fortune Islands         7           France         1           Germany         1           Greece         6           Grenada         16           Guadeloupe         6           Guiana, British         3           Grand Cayman         1           Haiti         3           Holland         1           Ilonduras         1           India         5           Ireland         1           Italy         6           9	cuador			6	
Germany         1         2           Greece         6         5           Greenada         16         23           Guadeloupe         6         14           Guiana, British         3         3           Grand Cayman         1         2           Haiti         3         10           Holland         1         2           Ilonduras         1         2           India         5         1           Ireland         1         1           Italy         6         9	inlandortune Islands		$\frac{1}{7}$	-	1
Grenada     16     23       Guadeloupe     6     14       Guiana, British     3     3       Grand Cayman     1     1       Haiti     3     10       Holland     1     2       Ilonduras     1     2       India     5     1       Ireland     1     1       Italy     6     9	ermany		. 1	2	11 3 11
Guiana, British     3       Grand Cayman     1       Haiti     3       Holland     1       Ilonduras     1       India     5       Ireland     1       Italy     6       9	renada		16 6	23 14	39
Holland.     1     2       Honduras.     1     2       India.     5     1       Ireland.     1     1       Italy.     6     9	uiana, British rand Cayman		3	1	
India       5       1         Ireland       1         Italy       6       9	folland		. 1	2	
Italy	ıdia			1 1	
Japan. 1	amaica			512	18 628
Japan     22       Martinique     1       Mexico     1       Montserret     5	fartinique		. 1	59 4	8

#### DEATHS BY NATIONALITY—Continued.

Nations.	Employees.	Non- employees.	Total.
Nassau	5 2	1	6
Nevis Nicaragua		$\begin{bmatrix} 2 \\ 4 \end{bmatrix}$	4
Norway. Panama.		1, 167	1, 180
Peru Porto Rieo		11	12
Portugal. Saba			1
Salvador	1	3	4
St. Croix St. Kitts	. 3	4	$\frac{1}{7}$
St. Lucia	10	45   3	55 4
St. Vincent	6	10 41	16 82
Trinidad	11	13 2	24
Turkey	1		1
United States. Venezuela.	35 1	49 11	84 12
West Indies. Unknown.	1 1	$\begin{vmatrix} 3 \\ 12 \end{vmatrix}$	4 13
Total.	467	2,535	3,002

## CAUSES OF DEATH OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION AND PANAMA RAILROAD.

Causes of death.	White.	Colored.	Total.
DISEASES.			
Alcoholism, acute and chronic			4
Anemia. Aneurysm.		$\begin{bmatrix} 2 \\ 3 \end{bmatrix}$	2
Apoplexy		5	6
Appendicitis	3		3
Bilharziosis, intestinal		1	$\frac{1}{3}$
Brain, softening of. Brain, tumor of.	_	1	ა 1
Calculi of urinary passages.		1	1
Cancer of intestines		1	1
Cancer and other malignant tumors of stomach and			0
liverColitis		2	3
Dysentery		1	î
Dysentery:		_	
Entamoebic		$\begin{bmatrix} 2 \\ 4 \end{bmatrix}$	2
Bacillary		1	1
Embolism and thrombosis		$\hat{3}$	3
Empyema		1	1
Encephalitis Endocarditis, acute		1	1
Epilepsy.	1	1	1
Fever:			Î
Hemoglobinuric		1	6
Malaria		1 7	13
Typhoid		3	13

## CAUSES OF DEATH OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION AND PANAMA RAILROAD—Continued.

Causes of death.	White.	Colored.	Total.
Heart, organic disease of.	4	19	23
Hemorrhages, other Infection of unknown origin.	1	1 4	1 5
Liver:	1	4	3
Abscess of		2	4
Cirrhosis of		1	$\frac{2}{1}$
Disease of	1		1
A bscess of		2	2
Gangrene of	$  2 \rangle$	4	6
Measles		2	2
Pneumocoecus		7	7
Simple		3	4
Nephritis:	3	2	5
Chronic		28	31
Other forms of mental alienation	1	20	1
Other diseases of the nervous system		1	1
Other diseases of the skin and annexa. Pellagra.		1 1	1 1
Pharvny disease of		i	1
Pharynx, disease of Peritonitis, simple		1	ī
Pneumonia		4	4
Pneumonia, lobar	3 1	$\begin{array}{c} 50 \\ 2 \end{array}$	53
Pyemia	1 2	5	7
Pyamia and senticemia nneumococcie		6	3 7 6 2
Septicemia		2	$\frac{2}{1}$
Spinal cord, disease of	1	1	î
Stricture of urethra		î	1
Sudden death		1	1
Syphilis	$\frac{1}{1}$	1	2
Tuberculosis:			1
Abdominal	. 1	3	4
Disseminated	2	25	27
Miliary. Pulmonary	1	$\frac{6}{32}$	6 33
Ulcer of the stomach		ĩ	1
Illoar duodenal	1	2	2
Undiagnosed.		1	1
VIOLENCE.			
Absorbtion of deleterious gases	1	3	4
Accidental traumatisms, various	9	32	41
Burns and scalds		2 14	2 19
Drowning, aecidental Dynamite explosions	5 3	6	9
Electric shock.	1	2	3
Homieides		1	3
Poisonings, acute	1 18	35	1 53
Suicides		2	4
Other external violence		3	4
Matal	101	366	467
Total	. 101	300	407

## DEATHS OF WHITE EMPLOYEES FROM THE UNITED STATES.

			1	_
Name.	Division.	Time on Isthmus.	Λge.	Cause of death.
January, 1912.				
Grigsby, Frank C Guillon, Felix	Central division Panama R. R. Co	4 years 6 years	46 32	Heart failure. Softening of the
Horam, J. L	Civil administration	21 years	23	brain. Malaria fever, E. A.
February, 1912.				
Cole, S. C Colip, E. H Ferguson, Howard.	Central division Panama R. R. Co Quartermaster's Department.	5 years 7 years 2 weeks	54 51 60	Simple meningitis. Abscess of the liver. Acute nephritis.
March, 1912.				
Hagan, John Kornfeld, Karl	Panama R. R. Co Atlantic division	7 years 2 years	45 42	Appendicitis. Organic disease of heart.
Longtin, F. R	Pacific division		29	Railroad trauma- tism.
Sadler, Joseph V	Central division	5½ years	50	Do.
A pril, 1912.				
Kenison, Nelson	Mechanical division	4 years	60	Traumatism by ma-
May, 1912.				chines.
Golden, John P	Pacific division	3 years 9	34	Traumatism in mines
Gould, Charles R Higley, Charles	Civil administration Atlantic division	months. 7 months 3½ years	32 43	and quarries. Suicide by firearms. Absorption of dele-
Kemp, John D	Civil administration	7 months	26	terious gases. Accidental drown-
Mahoney, Martin	McClintic-Marshall	1 year	42	Traumatism by fall.
June, 1912.	Co.			
Brenner, Joseph B.	Panama R. R. com-	4 years	38	Accidental drown-
Powers, Ike	missary. Pacific division	6 years	56	Hemoglobinuric fe-
Schwartz, Henry	Mechanical division	7 years	46	ver. Amoebic abscess of
July, 1912.				liver.
Riley, Thomas	Pacific division	13 months.	25	Acute endocarditis.
August, 1912.				
Gannon, Margaret	Sanitary depart-	$4\frac{1}{2}$ years	29	Acute mania.
E. Lockes, Charles F	ment. Mechanical divi-	2 years 10	35	Acute cardiac failure.
Painter, Joseph H	Atlantic Division	months.	36	Other acute poison-
Strock, James Ran-	Mechanical divi-	months. 5 years	50	ings. Acute cholangitis.
som. Smith, Alfred	sion. Central division	6 years	47	Chronic nephritis.
September, 1912.				
Fay, Lawrence B	Chief engineer's of-fice.	1 year 8 months.	28	Traumatism by fall.

DEATHS OF WHITE EMPLOYEES FROM THE UNITED STATES—Continued.

Name.	Division.	Time on Isthmus.	Age.	Cause of death.
September, 1912— Continued.				
Hanley, Wm. H	Pacific division	5 days		Railroad trauma-
Ray, Edward  October 1912.	McClintie-Marshall Co.	1 year 7 months.	40	tism. Acute alcoholism.
Frost, Walter B	Engineering and	2 years	23	Tubercular peritoni-
Reed, W. F	construction. Pacific division	1 year 10	29	tis. Acute alcoholism.
Stannage, Thomas.  November, 1912.	Chairman's office	months.	45	Purulent infection and septicemia.
Purcell, John J	Mechanical division.	4 years 10 months.	44	Railroad traumatism.
December, 1912.				
May, Duncan	Mechanical divi-	6 years 1	32	Accidental drown-
Wood, Benj. F	sion. Police department	month.	38	ing. Softening of brain.

## DEATHS OF WHITE WOMEN AND CHILDREN FROM THE UNITED STATES.

Name.	Time on	Age.	Cause of death.
January, 1912.			
Briggs (infant)	6 hours 3 years		Premature birth. Acute nephritis.
February, 1912.			
Sanders, Velma Lee	6 months	6 months	Pertussis.
March, 1912.			
Davis (infant)			Premature birth. Broncho-pneumonia.
A pril, 1912.			
l'eterson, Mabel	6 months	6 months	Malaria fever, E. A.
May, 1912.			
Einermann, Dorothy	8 months 5 years 2½ years	8 months 35 years 2½ years	Organic heart disease. Gastroenteritis. Acute meningitis. Malaria fever, E. A. Acute pelvie peritonitis

## DEATHS OF WHITE WOMEN AND CHILDREN FROM THE UNITED STATES—Continued.

	m:		
Name.	Time on Isthmus.	Age.	Cause of death.
June. 1912.			
Reynolds, Thomas	11 months.	11 months.	Diarrhea and enteritis.
July, 1912.			
Farley, Thelma. Jerry, Carl Nelson, jr Reidy, John Vaughn. Rohden, Mrs. N. Wilson Pearl	3 years 3 days 7 weeks 4 years 1 year	7 weeks 48 years	Acute indigestion.
August, 1912.			
Duvall, Fredericka. Kane, Mrs. Geo. N. Shearer, Mrs. S. G.	2 years 6 months 2 years	2 years 63 years	Cerebrospinal meningitis. Diabetes. Extra-uterine pregnancy.
Septem <b>b</b> er, 1912.			
Abendroth (infant)		2 days 3 years	Premature birth. Accidental drowning.
October, 1912.			
Clarke (infant)	9 days	9 days	Premature birth.
November, 1912.			
Lohman, Mrs. Chas. F Willett (infant)	3 years 5 hours	36 years 5 hours	Chronic nephritis. Premature birth.

For December, 1912, none.

#### DEATH RATE AMONG AMERICANS ON THE ISTHMUS.

	Number.	Cause of death.	Number of deaths.	Annual average per 1,000.
Average number of white employees from the United States.  Average number of white women and children from the United States.  Average number of white employees and their families from the United States.  Total number of Americans on the Canal Zone 1.	\	All causes. (Disease. Violence. (All causes. (Disease. Violence. All causes. (Disease. (Disease.	20 14 34 25 1 26 45 15 60 46 22 68	3. 25 2. 27 5. 52 5. 55 . 22 5. 77 4. 22 1. 41 5. 63 3. 86 1. 84 5. 70

<sup>&</sup>lt;sup>1</sup> The figures representing the total number of Americans on the Canal Zone include employees and their families and the officers and men of the Tenth Infantry and marines and their families.

	1		1			
Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pan- ama.	Colon.	Zone.	Total.
General diseases.						
Typhoid fever	6	1	2			9
Malaria Malarial fever:	1	1	78	24	45	149
Estivo autumnal	1	9 <b>2</b>	16		$\begin{array}{c c} 20 \\ 1 \end{array}$	71
Undetermined					1 3	1 3
Cachexia	5	2	1	1	2	8
Measles	2		1			3
Diphtheria and croup	3	2	2 2			7 2
Cholera nostras			$\frac{1}{23}$	3	7	1 34
Dysentery: Entamebic			1		1	11
Bacillary	1 5					1 5
Leprosy Erysipelas					1	$\frac{1}{2}$
Chicken pox		1		1		1 3
PyemiaSepticemia	9 4	1 4	17	2		10 27
Pyemia and septicemia, pneumo- coccic	9					9
TetanusPellagra	1 6	3 7	9	1	1	13 24
BeriberiTuberculosis of the lungs	54	1 28	11 169	23	29	12 303
Acute miliary tuberculosis  Tuberculous meningitis		$\frac{1}{2}$		1	2	10 5
Abdominal tuberculosis Pott's disease		1	6 1			10
Tuberculosis of other organs  Tuberculosis of the larynx		$\begin{vmatrix} 2 \\ \cdots \end{vmatrix}$	2			3 2
Tuberculous abscess	44	3	?	1.1	1	50
RicketsSyphilis:			2		4	2
Primary			3 1	1	1	1
Tertiary Hereditary Period not stated		$\sim$ 2	5 7	2	3	3 12 8
Gonorrheal arthritis. Gonorrheal orchitis and epididymitis.	1		1			1 2
Cancer and other malignant tumors of the buccal cavity			1	1	******	1
Cancer and other malignant tumors of the stomach and liver	8	3	2	1	1	15
Cancer and other malignant tumors of the peritoneum, intestines, and			_			10
rectum		1				1
of the female genital organs	3	1	7			11
of the breast		1				1
of the skin	1		1			2

				-		
Diseases.	Ancon Hospi- tal.		Pan- ama.	Colon.	Zone.	Total.
General diseases—Continued.  Cancer and other malignant tumors of other organs and of organs not specified.  Acute articular rheumatism. Chronic rheumatism and gout. Diabetes.  Anemia: Chlorosis. Primary, pernicious.  Anemia, secondary, cause not determined.  Alcoholism (acute or chronic).  Alcoholism (acute).	4	2	6 3 1	1	1 4	8 4 4 1 2 2 5 8 8 1 9 4
Encephalitis.  Encephalitis. Cerebrospinal fever Pneumococcus meningitis. Other diseases of the spinal cord. Acute anterior poliomyelitis. Cerebral hemorrhage, apoplexy. Softening of the brain. Paralysis without specified cause. Other forms of mental alienation. Epilepsy. Convulsions, nonpuerperal (5 years and over). Convulsions of infants (under 5 years of age). Neuritis. Other diseases of the nervous system. Tumor of the brain.	7 10 1 6 2	5 1 1 5 2 2	2 2		1 6 1 1 2 4 1 2 4 1 8	3 31 1 15 4 2 2 40 5 7 7 3 9 3 10 4 3 5
Pericarditis. Acute endocarditis. Malignant endocarditis. Organic diseases of heart. Angina pectoris. Aneurysm. Arteriosclerosis Embolism and thrombosis. Diseases of the veins (variees hemorrhoids, phlebitis, etc.). Hemorrhage (other diseases of the circulatory system).  Diseases of the respiratory system.  Diseases of the larynx Laryngitis. Acute bronchitis. Chronic bronchitis. Broncho-pneumonia. Pneumonia (unqualified) Lobar pneumonia	26 4 2 5	2 5 3 1 2 2 4 1 12	39 21 2 3 8 1 9	1 2 1 4 2 1 1 15	2 25 1 7 7 2 31 12 8	3 44 1 81 5 11 10 6 1 17 2 2 5 96 82 92 3

	1					
Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pan- ama.	Colon.	Zone.	Total.
Diseases of the respiratory system— Continued.						
Pulmonary congestion, pulmonary		9	1.1			16
Gangrene of the lungs	7	$\frac{1}{2}$				9
apoplexy congestion, pulmonary apoplexy Gangrene of the lungs Asthma Pulmonary emphysema Other diseases of the respiratory approximately approximately approximately			î			i
other diseases of the respiratory system (tuberculosis excepted) Abscess of lungs	1	1			1	1 2
Diseases of the digestive system.						
Diseases of the mouth and annexa			1		3	1 3
Diseases of the mouth and annexa. Stomatitis. Diseases of the pharynx. Ulcer of the stomach. Acute gastritis. Acute indigestion. Diarrhea and enteritis (under 2 years Colitis. Diarrhea and enteritis (2 years and over). Colitis. Ankylostomiasis. Intestinal parasites. Bilharziosis, intestinal.	1 1		1	2		1 4
Acute gastritis				4	1 2	5 2
Diarrhea and enteritis (under 2 years) Colitis	8	6 3	199 9	39	61 2	313 15
Diarrhea and enteritis (2 years and over)	. 3		30	3	2	38
Colitis	. 1	1	3			5
ntestinal parasites	1				2	7 1 4
Appendicitis and typhlitis  Hernia, intestinal obstructions	$\frac{2}{2}$		3			5
Other diseases of the intestines	2		2			5 9 2 2
Acute yellow atrophy of the liver	3		1 17	4	2	1 27
Other diseases of the liver	1 1	4	5	2		8 6
Abscess of the liver entamebic	. 3	4	1			7
Intestinal parasites Silharziosis, intestinal. A ppendicitis and typhlitis Hernia, intestinal obstructions. Intestinal obstruction. Other diseases of the intestines. Duodenal ulcer. Acute yellow atrophy of the liver. Other diseases of the liver. Other diseases of the liver. Abscess of liver (unqualified). Abscess of the liver entamebic. Cholecystitis. Abscess of spleen. Simple peritonitis (nonpuerperal).	. 1	3	3	1	4	1 15
Other diseases of the digestive system (cancer and tuberculosis ex-						
cepted)				-	$\cdot \mid  2$	3
Nonvenereal diseases of the genito-uri- nary system and annexa.						
Acute nephritis. Bright's disease (chronic nephritis).	6 41					49 144
Other diseases of the kidney and annexa.		1	2			. 8
Pyelo-nephrosis	·····i	. 1				. 2
Wystitis.  Stricture of the urethra, nonvenereal Vesico-vaginal fistula.  Diseases of the prostate.	. 2	-		. 1		. 2
Vesico-vaginal fistula		-				. 1
Nonvenereal diseases of the male	-		- 2			1
genital organs Hydrocele  Cysts and other tumors of the ovary			. 2			. 2
Salpingitis and other diseases of the female genital organs	9	1		-		1
tentate gential organs						

				,		_
Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pan- ama.	Colon.	Zone.	Total.
The puerperal state.						
Accidents of pregnancy Extra-uterine pregnancy Hyperemesis gravidarum Abortion Puerperal hemorrhage Other accidents of labor Puerperal septicemia Eclampsia.					3	1 1 1 4 4 2 13 15
Diseases of the skin and of the cellular tissue.						
Gangrene Furuncle Acute abscess Elephantiasis			2			5 1 2 1
Diseases of the bones and of the organs of locomotion.						
Diseases of the bones (tuberculosis excepted)	1					1
Malformations.						
Congenital malformations (stillbirth not included)	1		1			2
Diseases of early infancy.						
Congenital debility, icterus, and sclerema. Premature birth. Congenital debility. Malnutrition. Other causes peculiar to carly infancy	8 1	1 12 6	2 11 12 36	14 6 6 22	13 21 9 111	36 57 5 176
(including various consequences of labor) Lack of care	4	2	7	7 1	10	30 2
Old age.						
Senility	2		2	4	8	16
Affections produced by external causes.  Suicide by poisoning Suicide by hanging or strangulation. Suicide by drowning			1	1	1 1 2	6 2 2
Suicide by firearms			2		4	7
ments. Other acute poisonings. Burns (conflagration excepted)		1	2		3 2	1 4 5
Absorption of deleterious gases (con- flagration excepted). Accidental drowning. Traumatism by firearms.		1	2 1	5	32	4 39 2
Traumatism by cutting or piercing instruments		1 7	1 3	1	8	2 27
Traumatism by fall		2	3		2	8

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pan- ama.	Colon.	Zone.	Total.
Affections produced by external causes—Continued.  Traumatism by other crushings, (vehicles, railroads, landslides, etc.).  Railroad traumatism. Dynamite traumatism. Traumatism by landslides. Injuries by animals. Electricity (lightning excepted). Homicide by firearms. Homicide by cutting or piercing instruments. Homicide by other means. Other external violence.  Ill-defined diseases.	1	10	1	1	2 45 8 2 3 4	6 76 10 2 1 4 10 3 1 5
Ill-defined organic disease	5 9	1	3 24 1	3	3 2	7 3 *  36 12
Total	581 2 583	265 14 279	1,214 131 1,345	284 69 353	658 117 775	3,002 333 3,335

NOTE.—The deaths occurring in Ancon and Colon Hospitals resulting from illness, injury, or other cases admitted from the cities of Panama and Colon, or from the Canal Zone, are in the table of vital statistics, credited to the places from whence they were admitted.

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1912.

Diseases.	Dis- charged.	Died.
General diseases.		
Typhoid fever	30	3
Malaria fever:	1	
Estivo autumnal.	3,055 760	11
Tertian. Quartan.	69	
Mixed	$\frac{1}{23}$	
UndeterminedClinical	1,666	
Cachexia	6 26	5
Hemoglobinuric fever, malarial	13	9
Measles	58	2
Searlet fever. Diphtheria and croup.	9	
Influenza	254	

Diseases.	Dis- charged.	Died.
General diseases—Continued.		
Dysentery.	1	
Entainebic	35	2
Bacillary	2	1
Unclassified	157	. 4
Leprosy	4	
Dengue.	83	
Chicken pox	8	
Mumps.  Hemoglobinuric fever, unqualified.  Yaws.	6	
Hemoglobinuric fever, unqualified	14	
Yaws	5	
Filariasis	7 5	
Other enidemic diseases	$\frac{3}{2}$	************
Acute infectious jaundice (Weil's disease). Other epidemic diseases. Purulent infection and septicemia.	27	3
Pyemia	1	6
Septicemia Pyemia and septicemia, pneumococcic. Tetanus	1	1
Pyemia and septicemia, pneumococcic	2	6
Tetanus	2	1
Mycoses Pellagra	1 7	1
Tuberculosis of the lungs	146	29
Tuberculosis of the lungs. Acute miliary tuberculosis.		6
Tuberculous meningitis	1	
Abdominal tuberculosis	9	4
Pott's disease	3	
Tuberculosis of bones and joints	6 7	
Tuberculosis of other organs.  Tuberculosis of the larynx.	í	
Tuberculosis of the skin	1	
Tuberculosis of the lymph glands	7	
Tuberculosis of the genito-urinary organs	6	
Disseminated tuberculosis	7	26
Syphilis:	41	
Primary. Secondary.	174	
Tertiary	202	1
Period not stated	126	
Gonococcus infection	24	
Gonorrhea.	363	
Gonorrheal arthritis	41	
Gonorrheal bubo Gonorrheal orchitis and epididymitis.	42	
Gonorrheal ophthalmia	8	
Soft chancre.  Adenitis chancroidal.  Cancer and other malignant tumors of buccal cavity	247	
Adenitis chancroidal	334	
Cancer and other malignant tumors of buccal cavity	1	
Cancer and other malignant tumors of the stomach and liver Cancer and other malignant tumors of the peritoneum, in-	4	4
testines, rectum	1	
Cancer and other malignant tumors of the skin.	î	
Cancer and other malignant tumors of other organs and of		
organs not specified.  Other tumors (tumors of the female genital organs excepted).	5	
Other tumors (tumors of the female genital organs excepted).	44	
Acute articular rheumatism Chronic rheumatism and gout.	31 41	
Gout.	41	
Arthritis deformans	$\frac{2}{2}$	
Diabetes	8	
Anemia, chlorosis	12	2
Anemia, primary, pernicious.  Anemia, secondary, cause not determined	3	
Anemia, secondary, cause not determined	13	

Diseases.	Dis- charged.	Died.
Other general diseases Alcoholism (acute or chronic) Alcoholism, acute Alcoholism, chronic Alcoholic psychosis Other chronic occupation poisonings. Other chronic poisonings  Diseases of the nervous system and of the organs of special sense.	10 26 66 13 12 4 2	2 2
Simple meningitis Pneumococcus meningitis Locomotor ataxia Other diseases of the spinal cord Acute anterior polio-myelitis Cerebral hemorrhage, apoplexy Softening of the brain Paralysis without specified cause Other forms of mental alienation Dementia precox Epilepsy Hysteria. Neuralgia. Neuritis Other diseases of the nervous system Tumor of the brain Neurasthenia Diseases of the eyes and their annexa Follicular conjunctivitis Trachoma Diseases of the ears	81 12 1 196 552	2 9 2 1
Diseases of the circulatory system.  Pericarditis. Acute endocarditis Organic diseases of the heart. Aneurysm. Arterioselerosis. Embolism and thrombosis. Diseases of the veins (varices hemorrhoids, phlebitis, etc.). Hemorrhoids Varices Varicocele Phlebitis Diseases of the lymphatic system (lymphangitis, etc.). Lymphadenitis (nonvenereal). Hemorrhage; other diseases of the circulatory system.	87 5 15 18 113 13 56	
Diseases of the respiratory system.  Diseases of the nasal fossæ Adenoid vegetations. Myiasis of nasal fossæ and sinuses. Diseases of the larynx. Laryngitis. Diseases of the thyreoid body. Acute bronchitis. Chronic bronchitis. Broncho-pneumonia. Lobar pneumonia	272 111 51 7 12 3 3 395 58	1

Diseases.	Dis. charged.	Died.
Discases of the respiratory system—Continued.  Pleurisy. Empyema. Pulmonary congestion, pulmonary apoplexy	3	14. mg
Gangrene of the lungs  Asthma  Pulmonary emphysema  Other diseases of the respiratory system  Abscess of lungs	31 9 7	2
Diseases of the digestive system.  Diseases of the mouth and annexa. Diseases of the teeth and gums. Stomatitis. Diseases of the pharynx. Pharyngitis.		
Follicular tonsillitis Diseases of the oesophagus. Ulcer of the stomach Other diseases of the stomach (cancer excepted). Gastrectasis. Acute gastritis.	231 1 17 85 5 35	1
Chronic gastritis Acute indicestion Diarrhea and enteritis (under 2 years) Diarrhea and enteritis (2 years and over) Colitis Ankylostomiasis.	98 157 10 179 6 57	Ç.
Intestinal parasites Ascariasis Bilharziasis, intestinal Taeniasis Appendicitis and typhlitis. Acute appendicitis Chronic appendicitis	21 3 4 3 118 36 27	1 2
Hernia, intestinal obstructions. Inguinal hernia Other hernias Other diseases of the intestines. Constipation. Duodenal ulcer	29 237 24 107 64 8	2
Acute vellow atrophy of the liver Hydatid tumor of the liver Cirrhosis of the liver Biliary calculi Other diseases of the liver Absess of the liver (unqualified)	8 1 19 2 13 9	2
Abscess of the liver (entamoebic). Cholecystitis. Diseases of the spleen. Simple peritonitis (nonpuerperal). Other diseases of the digestive system (cancer and tuberculosis excepted).	5 11 7 12	\$ *9
Nonvenereal diseases of the genito-vrinary system and annera.  Acute nephritis.  Bright's disease (chronic nephritis).  Other diseases of the kidney and annexa	35 93 10	5 31
Pyelo-nephrosis Calculi of the urinary passages Diseases of the bladder	3 25 1	er.

Diseases.	Dis- charged.	Died.
Nonvenereal diseases of the genito-urinary system and		
annexa—Continued.		
Cystitis	27	
Diseases of the urethra, urinary abscesse, etc	30	
Stricture of the urethra, nonvenereal	65	1
Diseases of the prostate	1	
Acute prostatitis	1	
Chronic prostatitis.	4	
Abscess of the prostate	$\frac{1}{2}$	
Nonvenereal diseases of the male genital organs	112	
Hematocele	1	
Hydrocele	75	
Chylocele	1	
Uterine hemorrhage (nonpuerperal)	1	
Uterine tumor (noncancerous)		
Other diseases of the uterus	4	
Metritis	1 4	
Cysts and other tumors of the ovary	4	
	T.	
The puerperal state.  Abortion	3	
	•)	
Diseases of the skin and of the cellular tissue.		
Gangrene	2	
Furuncle	107	
Carbuncle	24	
Acute abscess	314	
Phlegmon and cellulitis	78	
Trichophytosis Scabies	$\frac{1}{5}$	
Chiggers (Pulex penetrans)	2	
Red bug	$\tilde{2}$	
Pemphigus contagiosus	1	
Filaria medinensis	1	
Elephantiasis	12	
Dhobie itch	35	
Ulcer of the skin	136	
Propical ulcer	6 5	
Impetigo contagiosa Urticaria	อ อี	
Ingrowing nail	17	
Other diseases of the skin and annexa	211	
Diseases of the bones and of the organs of locomotion.		
	0.1	
Diseases of the bones (tuberculosis excepted)	24	
Caries (nontuberculous)	4	
Osteomyelitis.	Š	
Periostitis.	25	
Diseases of the joints (tuberculosis and rheumatism excepted).	29	
Ankylosis	3	
Arthritis	86	
Synovitis	45	
Amputations. Other diseases of the organs of locomotion.	$\frac{90}{212}$	
Malformations.		
,		

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1912—Continued.

Diseases.	Dis- charged.	Died.
Old age.	3	
A ffections produced by external eauses.  Poisoning by food	18	
Burns (conflagration excepted).  Absorption of deleterious gases (conflagration excepted)	137	3
Traumatism by firearms. Traumatism by cutting or piercing instruments. Traumatism by fall Traumatism in mines and quarries. Traumatism by machines. Traumatism by other crushings (vehicles, railroads, landslides,	543 422 104 297	10
Traumatism by other crushings (vehicles, railroads, landslides, etc.).  Railroad traumatism  Dynamite traumatism	136 479 999	$\begin{array}{c c} 1 \\ 24 \\ 2 \end{array}$
Traumatism by landslides Injuries by animals Effects of heat Heat exhaustion	23 4 3 2	
Electricity (lightning excepted). Fractures (cause not specified). Dislocations.	507 29	
Sprains. Other external violence.  Ill-defined diseases.	216 1, 153	2
Ill-defined organic disease. Cause of death or disease not specified or ill defined. Infections of undetermined origin. No disease Feigned disease.	4 3 39 68 7	1 1 5
Total	20,477	340

#### CONSOLIDATED HOSPITAL REPORT.

Hospitals.	Re- main- ing Jan. 1.		Admitted.		Died.		Disch	arged.	Trans- ferred.		Re- main- ing Dec. 31.	
	W.	C.	W.	C.	w.	C.	w.	C.	w.	C.	W.	C.
Ancon Hospital.												
Employees Nonemployees Insane		94	2,746	9,270 1,800 168	60	222	5,288 2,511 12	1,565			89	439 74 282
Total	332	747	9,825	11, 238	110	471	7,811	10, 581	1,912	138	324	795
Employees Nonemployees	71 37			1, 400 1, 514			2,518 1,217	1,346 1,308	577 23	4 13	111 39	78 78
Total	108	131	4, 424	2.914	47	218	3, 735	2,654	600	17	150	156

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## CONSOLIDATED HOSPITAL REPORT-Continued.

Hospitals.	Re- main- ing Jan. 1.		Admitted.		Died.		Discharged.		Trans- ferred.		Re- main- ing Dec. 31.	
	w.	C.	W.	C.	W.	C.	W.	C.	w.	C.	W.	C.
Culebra Hospital.												
Employees Nonemployees	2	····5	28	168	····i	· · · · · · · · · · · · · · · · · · ·	27	150	2	13		3
Total	2	5	28	168	1	7	27	150	2	13		3
Palo Seco Leper Asylum.												
Employees Nonemployees	2	47	1	2 9		7		2 3		i	3	45
Total	2	47	1	11		7		5		1	3	45
Taboga Sanitarium.												
Employees	39 21		2,380 1.140		1		2,358 1,149				34 9	
Total	60		3,520		1		3,507		29		43	
GRAND TOTAL.												,
Employees Nonemployees Insane	325 149 30	201		3,491	89	406	10, 164 4, 904 12	3,026	201	60	140	200
Total	504	930	17, 798	14, 331	159	703	15,080	13, 390	2.543	169	520	999

#### CONSOLIDATED SICK-CAMP REPORT.

Stations.	Re-main-ing Jan. 1.		Admitted.		Died.		Discharged.		Trans- ferred.		Re- main- ing Dec. 31.	
	W.	C.	W.	C.	w.	C.	W.	C.	W.	C.	W.	C.
Miraflores Pedro Miguel Paraiso Culebra Empire Las Cascadas Bas Obispo Gorgona Gatun Cristobal Porto Bello Toro Point	2 1 2 2 8 5	3 3 3 4 5 7 4 8 6 6 3	541 241 147 460 321 261 224 88 886 142 155 91	657 471 465 712 975 374 316 867 2,236 981 384 338	3 1 1	1 1 1 1 1	262 144 84 327 252 225 195 68 531 77 116 38	397 239 250 515 724 344 306 641 1,515 527 330 161	279 99 64 128 70 37 37 20 360 65 39 57	260 235 218 197 255 35 16 229 728 459 57 180	2	2
Total	24	52	3,557	8,776	5	5	2,319	5, 949	1, 255	2,869	2	7.

## CONSOLIDATED REPORT OF EMPLOYEES SICK IN QUARTERS.

Stations.	Days ex	cused for q	uarters.	New patients excused for quarters.				
	White.	Colored.	Total.	White.	Colored.	Total.		
Naos Island	64	258	322	25	118	143		
Ancon	1,030	1,661	2,691	440	249	689		
Balboa	607	77	684	294	56	350		
Corozal	625		625	435		435		
Miraflores	159	4	163	114	2	116		
Pedro Miguel	619		619	326		326		
Paraiso	559	3	562	279	1	280		
Culebra	507	35	542	265	19	284		
Empire	1,733	7	1,740	779	3	782		
Las Cascadas	683	6	689	292	1 1	293		
Bas Obispo	281	22	303	131	7	138		
Gorgona	3,788	562	4,350	1,769	186	1,955		
Gatun	1,690	95	1,785	855	4	859		
Cristobal	2, 156	161	2,317	1,064	47	1, 111		
Porto Bello	218		218	115		113		
Toro Point	72		72	50		50		
Total	14, 791	2,891	17,682	7,233	693	7,920		

## CONSOLIDATED HOSPITAL, SICK-CAMP, AND SICK-IN-QUARTERS REPORT.

	ma	e- in- ng	Admitted.		itted. Died. Disch		narged.		Trans- ferred.		Remaining Dec. 31.		
	W.	C.	W.	C.	W.	C.	W.	C.	w.	C.	w.	C.	
Hospitals Sick camps	504 24			14,331 8,776				13,390 5,949			520 2	999	
Total	528	982	21,355	23, 107	164	708	17,399	19,339	3,798	3,038	522	1,004	
								Whit	e. Co	olored.	То	tal.	
Total admission Number of em								21,3 7,2		23, 107 693		4, 462 7, 926	
Total								28, 5	88	23,800	5	2,388	
Less number of patients transferred from sick camps to hospitals, and from hospitals to sanitarium, whose admissions are duplicated in above figures.									98	3,038		6,836	
	Net admissions to hospitals and sick camps and those sick in quarters									24,790 20,762			

#### CONSOLIDATED DISPENSARY REPORT.

• (	Eı	mployee	es.	Non	emplo	yees.	Total.			
Stations.	White.	Col- ored.	Total.	White.	Col- ored.	Total.	White.	Col- ored.	Total.	
Naos Island Ancon Balboa Corozal Miraflores Pedro Miguel Paraiso Culebra Empire Las Cascadas Bas Obispo Gorgona Gatun Cristobal Porto Bello Toro Point Margarita Point	755 8,532 14,831 11,649 23,715 15,958 6,971 20,382 17,469 6,699 13,601 21,810 38,511 14,362 4,102 4,428 516	17,574 18,738 8,486 27,623 14,495 5,551 21,948 26,553 5,247 13,681 22,890 39,933 7,405 9,163	26, 106 33, 569 20, 135 51, 338 30, 453 12, 522 42, 330 44, 022 11, 946 27, 282 44, 700 78, 444 32, 900 11, 507 13, 591	4,186 2,179 3,361 2,603 2,976 8,456 8,854 4,903 3,552 7,251 5,317 6,628 867	844 1,380 463 1,991 1,588 9,588 6,896 2,777 2,621 6,898 4,750 3,455	9,408 3,023 4,741 1,097 4,594 4,564 15,750 6,173 14,149 10,067 10,083	17,010 15,010 24,349 18,561 9,947 28,838 26,323 11,602 17,153 29,061 43,828 20,990 4,969	22, 796 19, 582 9, 866 28, 086 16, 486 7, 139 31, 536 33, 449 8, 024 16, 302 29, 788 44, 683 21, 993 8, 841 9, 650	35, 514 36, 592 24, 876 52, 435 35, 047 17, 086 60, 374 59, 772 19, 626 33, 455 58, 849 88, 511 42, 983 13, 810	
Total	224, 291	264, 509	488,800	62,537	50, 405	112,942	286, 828	314,914	601,742	

## AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK IN HOSPITALS, SICK CAMPS, AND QUARTERS.

Hospitals			White.	Colored.	Total.
vlum		452.49 86.58 .49 539.56	693, 46 195, 06 , 49 42, 95		
<u> </u>	Sick camps		Sic	k in quarte	ers.
White.	Colored.	Total.	White.	Colored.	Total.
	3.18	5.92	0.17 2.81 1.66 1.71 .43 1.69 1.35 1.38 4.73 1.86 .77 10.35 4.62 5.89 .60	0.71 4.54 21 .01 .01 .02 .02 .06 1.54 .26 .44	0. SS 7. 355 1. S7 1. 71 . 44 1. 69 1. 54 1. 48 4. 75 1. 88 . 83 11. 89 4. 88 6. 33 . 60
	White.  2.74 1.71 1.14 4.07 2.51 3.76 2.03 .70 5.76 .83 1.47	Sick camps  White. Colored.  2.74 3.18 1.71 2.75 1.14 3.35 4.07 6.40 2.51 6.44 2.03 4.60 .70 7.34 5.76 15.74 .83 5.21 1.47 4.11	Sick camps.  White. Colored. Total.  2.74 3.18 5.92 1.71 2.75 4.46 1.14 3.35 4.49 4.07 6.40 10.47 2.51 6.44 8.95 3.76 5.94 9.70 2.03 4.60 6.63 .70 7.34 8.04 5.76 15.74 21.50 .83 5.21 6.04 1.47 4.11 5.58	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

#### AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK.

	White.	Colored.	Total.
Hospitals. Sick camps Sick in quarters. Total		7.92	931.96 94.40 48.32 1,074.68

#### AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK PER 1,000.

	White.	Colored.	Total.
Hospitals	2.17	14.07 1.75 .21	18.31 1.85 .95
Total	36.65	16.03	21.11

# AVERAGE NUMBER OF DAYS' TREATMENT PER EMPLOYEE IN HOSPITALS, SICK CAMPS, AND QUARTERS.

Hospitals.	White.	Colored.	Total.
Ancon Hospital. Colon Hospital. Palo Seco Leper Asylum. Taboga Sanitarium.	12.75	17. 96 22. 67 90. 00	15. 59 15. 80 90. 00 6. 57
Total	11.44	18.59	14.71

	Sick camps,		Quarters.			
	White.	Colored.	Total.	White.	Colored.	Total.
Naos Island Ancon Balboa Corozal Miraflores Pedro Miguel Paraiso Culebra Empire Las Cascadas Bas Obispo Gorgona Gatun Cristobal Porto Bello Toro Point				2. 56 2. 34 2. 06 1. 44 1. 39 1. 90 2. 00 1. 91 2. 22 2. 34 2. 15 2. 14 1. 98 2. 03 1. 90 1. 44	2. 20 6. 67 1. 38 2. 00 3. 00 1. 84 2. 33 6. 00 3. 14 3. 02 23. 75 3. 43	2. 25 3. 91 1. 95 1. 44 1. 41 1. 90 2. 01 1. 91 2. 23 2. 35 2. 20 2. 23 2. 09 2. 09 1. 90
Total	2.79	2.79	2.79	2.04	4.17	2.23

#### SUBSISTENCE AND OPERATING EXPENSES.

	Hospitals.	Siek camps.	Total.
Subsistence expenses.			
Number of days' rations issued to patients Cost of rations issued to patients Cost of subsistence per patient per day	\$144, 181.81	34,554 \$8,319.38 \$0.240	\$152,501.19 \$0.251
Operating expenses.			
Number of days' relief furnished patients Cost of operation Cost per eapita per day Cost of operation with amount received from		\$17,695.35 \$0.51	606, 143 \$724, 829, 63 \$1, 20
outside patients, etc., deducted	\$551,594.09	\$17,695.35	\$569, 289. 44
Cost per capita per day with above deduction	\$0.97 \$152,785.99	\$0.51	\$0.94

## OUTSIDE PATIENTS TREATED IN HOSPITALS AND AMOUNTS COLLECTED FOR THEIR TREATMENT.

	Number of cases treated.	Number of days' relief.	Amount.
Patients for whom the Republic of Panama pays 75 cents per day	2,503	70,702	\$53,026.50
pays 30 cents per day	3,178	11,413 31,971	3,423.90 9,591.30
other prices.  Patients from the Canal Zone paying other prices.	1,604 4,590	14,959 35,946	38, 627. 90 44, 519. 17
Patients from the Canal Zone not paying Patients from the Republic of Panama not	2,580	50.061	
paying	553	7,402	
Total	15,448	222, 454	149, 188. 77

Note.—Patients carried from one month to another are considered as separate cases in above table.

#### SURGICAL OPERATIONS PERFORMED IN HOSPITALS.

	Number.	Died.
imputations:		
Shoulder	. 1	1
Arm	. 7	
Forearm	. 6	1
Hand	. 1	
Hip joint.		1
Thigh		1
Tag	10	
Leg	. 19	{
Foot	. 6	
Digits, multiple	. 39	
Leg, double	. 2	1

## SURGICAL OPERATIONS PERFORMED IN HOSPITALS—Continued.

	Number.	Died.
Operations on bones:		
Cranicatomy:	25	6
Decompressive	3	0
Exploratory	5	4
Laminectomy Ostiectomy	37	1
Resection of elbow	3	
Wining of frontings:		
Wiring of fractures: Simple	46	2
Compound	27	
A demonstrative	10	4
Conviced	19	1
Axillary	9	
	406	
Cinglo	406	
11011010		
Femoral	20	
Herniotomy:		
Inguinal: Single	190	2
Single	124	
Femoral	9	
3741	. 21	
Combinded (and two of the above)	•   -	
Strangulated	. 8	1
Conito arringry tract:	1	
Monhrotomy	. 5	
Nephropexy	. 1	
Nephrectomy Nephropexy Perinephritic abscess, drainage of	- 1	
Cystotomy	. 1	
Timothrotomy:	i	
Internal	54	
External Prostatectomy	3	
Varicocele, radical cure	. 60	
Hydrocele: Single, radical cure	72	
Double radical cure		
Orchidactomy	20	
Enididymotomy	[	
Vacantamy		
Amputation of penis Amputation of penis and serotum	5	
Amputation of penis and serotum	238	
('iirotage liter)		
Porinconlasty		
Trachelorrhaphy	49	
Vaginal sections Vaginal punctures		3
Obstatrical:		
Obstetrical: Cesarean section—		
Abdominal		5 1
Vaginal	1	2
High forcens		6
Low forcens	4	
Varsian	!	2
Perineorrhaphy	7	3
Thorax:		0 1
Thoracotomy		$\begin{bmatrix} 0 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 2 \end{bmatrix}$
Pneumothoracotomy		1
Pericardiotomy		3
Excision of breast and axilla. Gunshot wound of chest, operation for		1
Stab wound of chest, operation for		1
ctan would of chest, operation for		

## SURGICAL OPERATIONS PERFORMED IN HOSPITAL—Continued.

	Number.	Died.
Rectum:		
Hemorrhoids, radical cure	153	
Fistula in anus, excision of .	1.5	
Prolapsus rectum, radical excision	1	
General:	1	
Thyroidectomy	. 11	
Aneurismorrhaphy. Varicose veins, excision of.	. 1	
Varicose veins, excision of	29	
Tenorrhaphy	. 8	
Excision of surface neoplasms	1 - 29	
Gunshot wound of soft parts, operation for	6	
Extensive injuries to soft parts, operation for Plastic operation for congenital defect.	1	
Plastic operation for congenital defect	4	
Plastic operation for severe injuries	42	
Plastic operation for effects of disease	35	
Skin graft	24	
Laparotomy.		
For general peritonitis	5	
For tuberculous peritonitis	2	
For intestinal obstruction	7	
Exploratory		
Gastrotomy		
Gastro-enterostomy	12	
Entero-enterostomy		
Enterectomy	3	
Enterorrhaphy	4	
Appendectomy	248	 
Appendectomy with local peritonitis	21	
Appendectomy with general peritonitis	11	
Caecostomy	2 2	
Colostomy		
Sigmoidopexy	4	
Cholecystotomy	7	
Cholecystostomy	10	
Cholecystectomy. Abscess of liver, laparo-hepatotomy for.	2	
Abscess of liver, laparo-hepatotomy for	13	
Abscess of liver, thoraco-hepatotomy for	17	
Splenectomy	1	
Panhysterectomy	24	
Supravaginal hysterectomy	23	
Hysteromyomectomy	39	
Myomectomy.	13	
Salpingectomy, single		
Salpingectomy, double		
Salpingo-oohoreetomy	17	
Ovarian cystectomy	$\frac{6}{2}$	
Oophorectomy.		
Suspensio-uteri	66	
Plastic operation for chronic pelvic perotonitis	60 12	
For cetopic gestation	12	
	5	
General peritonitis	2	
	3	
Rupture of spleen	1	
Stab wound of abdomen	64	
Major operations, various other	3,756	
cinor operations, various	3,700	
Total.	6,977	6
± 0 1/41	0,911	0

# OPERATIONS AND WORK PERFORMED IN EYE, EAR, NOSE, AND THROAT CLINICS.

	Number.	Died.
Operations:		
Abscess, peritonsillar		
Adenectomy	175	
Adence formy Advancement of external rectus	9	
Advancement of internal rectus	8	
Blepharoplasty for ectrapion (skin graft)		
Bowman's dilatation of lacrymal duct	3	
Cataraet—		
Discission of		
Needling	2	
Cyst, sebaceous, excision	4	
Capsulectomy	5	
Conjunctival cyst	1	
Daeryoeystotomy Dilatation of laerymal sac.	i i	
Dilatation, esophageal.	4	
Discission, juvenile cataract	1	
Enucleation.		
Evisceration		
Excision of chalazion		
Excision of eyst, iris		
Excision Keloid	1	
Excision, melano sarcoma Expression for follicular conjunctivitis. Expression for trachoma.	1	
Expression for follicular conjunctivitis	6	
Expression for trachoma		
Extraction of cataract. Goldsmith's plastic operation for closure		
Goldsmith's plastic operation for closure	septal perfora-	
fion		
Holsrath-Kuhnt operation. Incision and drainage of abscess, eyelid. Incision and drainage of lacrymal sac	4	
Incision and drainage of abscess, eyelid	1	
Incision and drainage of lacrymal sac	3	
Incision of chalazion	8	
Incision of peritonsillar abscess		
Inferior turbinate, cauterizations		
Iride tomy		
Lacrymal canaliculus incised Lacrymal duct probed	28	
La Grange operation	1	
Ligature, conjunctival vessel	î	
Lingual tonsil, cauterizations	15	
Mastoidectomy		
Mastoidotomy, simple		
Mastoidotomy, radical		
Maxillary, sinus	4	
Nasal bones, setting of. Papillimatous growth eyelid resected		
Papillimatous growth eyelid resected	1	
Paracentesis of cornea		
Paracentesis of membrana tympani		
Paraffine prosthesis of nose Phlyetenule, excision		
Phlyctenule, excision	2	
Plastic on ear		
Plastic on eyelid.		
Plastic, face	4	
Plastic on nose.	16	
Polypoid growth tonsil removed	1	
Polypoid growth uvula removed		
Pterygium, ablation Pterygium, transplantation	38 103	
Removed of oural polyn	103	
Removal of aural polyp	1	1
Removal of cyst, ear Removal of nasal polyp	30	
Selerotomy, posterior Septal spurs		
Sinusotomy, maxillary, radical	8	
Subconjunctival cysts	5	

# OPERATIONS AND WORK PERFORMED IN EYE, EAR, NOSE, AND THROAT CLINICS—Continued.

	Number.	Died.
perations—Continued.		
Subperiosteal abscess	. 2	
Suture, lacerated selera		
Tarsal tumors		
Tenotomy		
Tonsillectomy		
Tonsillotomy		
Turbinectomy		
Uvulotomy		
Wolff's graft, eye		
various inmoi operations	1,211	
Total.	2.706	
efractions		
utside cases treated		
Grand total.	24,914	
	<u>'</u>	1
ONSOLIDATED WARD LABORATORY REPORT OF	`ALL HOS	SPITAL
ood examinations		20,8
Estivo-autumnal		
Tertian, single		
Tertian, double		
Mixed tertian and estivo-autumnal		
Quartan		1
Differential blood counts		$ \begin{array}{ccc} & 2,0 \\ & 3,0 \end{array} $
Red blood counts.		
White blood counts		3
Hemoglobin estimations.		
Filaria		
FilariaGuaiae and turpentine tests for invisible blood		2
Moro test		
tool examinations		16, 4
Hymenolepsis dimunitis		
Monadena		
Ascaris lumbricoides		
Uncinaria ova		
Tricocephalus dispar		1, 7
Strongyloides intestinalis.		
Tenia		
Tenia saginata		
Ameba		
Entameba.		
Ciliated monads		
Bilharzia		
Pus and blood.		
Pus and epithelial cells		
Balantidium eoli		
Tubercle bacilli		
Entameba, tetragena		
Oxyuris vermicularis		
Entameba, histolytica		
Entameba coli		
Trichuris trichinura		
Flagellated monadsuaiae and turpentine tests for occult blood		
Curds		
Bismuth crystals.		
Ankylostoma worms		
rine examinations		
rine examinations		
rine examinations Albumen Albumen and casts		$7,6$

Pus and brood			nued.								2,5	19 23
Gonococci												3
Epithelium												$\frac{34}{22}$
Trichomonas	vagin	atis.										4 5
												4
Hemin crysta Guaiae and tu												31  59
												15
												5 94
Pus and epith Phosphates												1
												1 1
Bacilli, acid fa	ast										_	6
												6 1
Chyluria									 			13
												337 4 <b>27</b>
Tubercle baci	.111										_	1
Blood											-	$\frac{2}{1}$
Diplococci												2
Pus			 		<del>-</del> -						-	5
Miscellaneous:		.1	al offin	nione								3
												377 18
Examination Examination Examination												204
												11
												4 6
Skin scraping	gs											6
Stomach con	tenus											
Gastric analy	ses.											107
Gastric analy	rses.										• •	107
Gastric analy	ses.			CON							• •	107
Gastric analy	rses.										Rem	
Gastric analy	Rem	iain-	AN		HC		ITAI		Trai	ıs-	Rem	ain-
	rses.	ain-	AN	CON	HC	SP	ITAI		Trai	ıs-	Rem	ain-
Gastric analy	Rem	ain-	AN	CON	HC	SP	ITAI		Trai ferre	ns- ed.	Rem in Dec	ain-
	Rem	ain-	AN	CON	HC	oSP	ITAI		Trai	ıs-	Rem	ain-
	Reni in Jan	iain- g . 1.	AN	CON	HC Die	oSP	ITAI Disch	narged.	Trai ferre	ns- ed.	Rem in Dec	ain-
Class.	Reni in Jan	iain- g . 1.	AN	CON	HC Die	oSP	ITAI Disch	narged.	Trai ferre	ns- ed.	Rem in Dec	ain-
Class.  Isthmian Canal Commission	Remin Jan	rain- g . 1.	AN Adm	CON ditted.	Die W.	ed.	Disch W.	narged.	Trai ferre	c.	Rem in Dec	cain-g
Class.  Isthmian Canal C o m mission employees	Remin Jan	ain- g . 1.	AN	CON	Die W.	oSP	Disch W.	narged.	Trai ferre	C. 59	Remin Dec	ain- g . 1. C.
Class.  Isthmian Canal Commission employees Panama R. R.	Remin Jan W.	rain- g . 1.	AN Adm W. 6,766	CON ditted.  C.  7,728 1,542	Die W.	OSP ed. C. 171 51	UTAI Disch	C. 7,397	Tran ferre W.  1,654 69	C. 59	Remin Dec	ain- g . 1. C. 389 50
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients	Remin Jan  W.  195 20 83	C. 288	AN Adm W. 6,766 290 2,469	CON ditted.	Die W. 49	OSP ed. C. 171 51 107	Disch W. 5,063 225 2,246	C. 7,397 1,531 1,088	Trai ferre	C. 59	Remin Dec	ain- g. 1. C. 389 50 59 15
Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients	Remin Jan  W.  195 20 83 4	288 103 55 -39	AN Adm W. 6,766	CON ditted.  C.  7,728 1,542	HC Die W. 49	OSP ed. C. 171 51	UTAI Disch	C. 7,397	W. 1,654 69 171	C. 59	Remin   Dec	ain-g. 1. C. 389 50 59
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Insane patients	Remin Jan W	288 103 55 -39 262	AN Adm W. 6,766 290 2,469 277 23	CON  iitted.  C.  7,728  1,542 1,211 589 168	Die W. 49	OSP  ed.  C.  171 51 107 115 27	Unisch W. 5,063 225 2,246 265 12	7,397 1,531 1,088 477 88	Tran ferre W.  1,654 69 171 2 16	59 13 12 21 33	Rem in Dec W. 195	ain- g. 1. C. 389 50 59 15
Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients	Remin Jan W	288 103 55 -39 262	AN Adm W. 6,766 290 2,469 277 23	CON ditted.	Die W. 49	OSP  171 51 107 115 27	Unisch W. 5,063 225 2,246 265 12	7,397 1,531 1,088	Trai ferre W.  1,654 69 171 2	59 13 12 21 33	Rem in Dec W. 195	aain- g . 1.  C.  389 50 59 15 282
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Insane patients	Remin Jan W	288 103 55 -39 262	AN Adm W. 6,766 290 2,469 277 23	CON  iitted.  C.  7,728  1,542 1,211 589 168	Die W. 49	OSP  ed.  C.  171 51 107 115 27	Disch W. 5,063 225 2,246 265 12 7,811	7,397 1,531 1,088 477 88	Tran ferre  W.  1,654 69 171 2 16 1,912	59 13 12 21 33	Rem im Dec W	389 50 59 15 282 795
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Insane patients	Remin Jan W	288 103 55 -39 262	AN Adm W. 6,766 290 2,469 277 23	CON citted.  C.  7,728 1,542 1,211 589 168	Die W. 49	OSP  ed.  C.  171 51 107 115 27	Disch W. 5,063 225 2,246 265 12 7,811	7,397 1,531 1,088 477 88	Tran ferre W.  1,654 69 171 2 16	59 13 12 21 33	Rem in Dec W. 195	389 50 59 15 282 795
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Insane patients	Remin Jan W	288 103 55 -39 262	AN Adm W. 6,766 290 2,469 277 23	CON citted.  C.  7,728 1,542 1,211 589 168	Die W. 49	OSP  ed.  C.  171 51 107 115 27	Disch W. 5,063 225 2,246 265 12 7,811	7,397 1,531 1,088 477 88	Tran ferre  W.  1,654 69 171 2 16 1,912	59 13 12 21 33	Rem im Dec W	389 50 59 15 282 795
Class.  Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Insane patients Total	Rem in Jan W	288 103 55 -39 262	AN  Adm  W.  6,766 290 2,469 277 23 9,825	CON itted.  C.  7,728 1,542 1,211 589 168 11,238	HC  Div  49  52 8 1 110	OSP  171 51 107 115 27 471	U. Disch	7,397 1,531 1,088 477 88 10,581	Tran ferre W.  1, 654 69 171 2 16 1, 912 Colore	59 13 12 21 33 138	Rem im Dec W	389 50 59 15 282 795
Class.  Isthmian Canal C o m mission employees Panama R. R. employees Pay patients Charity patients Insane patients Total	Rem in Jan W	288 103 55 -39 262 747	AN  Adm  W.  6,766  290 2,469 277 23  9,825	CON  7,728  1,542 1,211 589 168  11,238	HC Die W. 49 52 8 1 110	C. 171 51 107 1115 27 471	TAI  Disch  W.  5,063 2,246 265 12 7,811	7,397 1,531 1,088 477 88	Tran ferre W.  1, 654 69 171 2 16 1, 912 Colore	59 13 12 21 33	Rem im Dec W	389 50 59 15 282 795
Isthmian Canal Commission employees Panama R. R. employees Pay patients Charity patients Total  Average numbe for the year Average numbe	Rem in Jan W	288 103 55 -39 262 747	AN  Adm  W.  6,766 290 2,469 277 23 9,825  treati	CON  7,728 1,542 1,211 589 168 11,238  ment peomstant	W. 49 52 8 1 110	OSP  C.  171 51 107 115 27 471	UTAI Disch W. 5,063 225 2,246 265 12 7,811	7,397 1,531 1,088 477 88 10,581	Tran ferre W.  1, 654 69 171 2 16 1, 912 Colore	59 13 12 21 33 138	Rem im Dec W. 195 16 83 6 24 324 Total	389 50 59 15 282 795 tal.
Class.  Isthmian Canal C o m mission employees Panama R. R. employees Pay patients Charity patients Insane patients Total	Rem in Jan W	288 103 55 262 747	AN  Adm  W.  6,766 290 2,469 277 23 9,825  treatr  yees cornishe	CON  7,728  1,542 1,211 589 168  11,238  nent period patient de patient	W. 49 52 8 1 110 110 110 110 110 110 110 110 110	C.  171 51 107 115 27 471	Unisch W. 5,063 2,246 265 12 7,811	7,397 1,531 1,088 477 88 10,581 White. 12.49 240.97	Trainer ferre W.  1,654 69 171 2 16 1,912 Colore	59 13 12 21 33 138	Rem im Dec W	389 50 59 15 282 795

#### NATIONALITY.

Class.	Number	Amer	ricans.	Other nations.		
Class.	treated.	W.	C.	w.	C.	
Isthmian Canal Commission employees. Panama Railroad employees. Pay patients. Charity patients Insane patients.	14, 977 1, 955 3, 818 909 483	2,560 177 1,617 147 10	20 1	4,013 151 880 115 29	8,384 1,626 1,321 644 444	
Total	22, 142	4,511	24	5, 188	12, 419	

#### OPERATIONS.

(See report of all surgical operations.)

#### LABORATORY REPORT.

(See consolidated ward laboratory report.)

## COLON HOSPITAL.

Class.	ma ir	e- in- ig	Adm	Admitted.		Died.		Dis- charged.		Trans- ferred.		e- in- ig . 31.
	w.	C.	W.	C.	w.	C.	w.	C.	W.	C.	w.	C.
Isthmian Canal Commission employees Panama R. R. employees. Private pay Municipal pay Zone charity Total	57 14 21 2 14 108	29 22 13 20	2,634 520 1,073 26 171 4,424	789 611 1,051 117 346 2,914	14 5 11 4 13 47	23 92 21 57	2, 121 397 1, 033 23 161 3, 735	582 930 104 274	462 115 21 1 1 600	2 2 4 9	94 17 29 10 150	45 33 47 5 26 156

	White.	Colored.	Total.
Average number of days' treatment per employee for the year.  Average number of employees constantly siek during the year.  Number of days' relief furnished patients.  Cost of subsistence per patient per day.	108.48	22. 67 86. 58	15.80 195.06 112,527 \$0.297

#### NATIONALITY.

Class.	Number	Am	ericans.	Other nations.		
Class.	treated.	W	C.	W.	C.	
Isthmian Canal Commission employees	3,527 1,174 2,167 158 551 7,577	1,960 329 765 4 108 3,166		605 152 300 24 66 1,147	962 693 1, 102 130 377 3, 264	

#### OPERATIONS.

(See report of all surgical operations.)

#### LABORATORY REPORT.

(See consolidated ward laboratory report.)

#### CULEBRA HOSPITAL.

Class.	Remain- ing Jan. 1.		Admit- ted.		Died.		Dis- charged.		Trans- ferred.		Remain- ing Dec. 31.	
	w.	C.	W.	C.	W.	C.	w.	C.	w.	C.	W.	C.
Nonemployees	2	5	28	168	1	7	27	150	2	13		3
Number of days' relief furn	ishe	d pati	ents			• • • • •					2,	082

## 

#### NATIONALITY.

Class.	Number	Amer	ricans.	Other nations.		
Cathrida.	treated.	w.	C.	W.	C.	
Nonemployees	203	8	3	18	174	

#### OPERATIONS.

(See report of all surgical operations.)

#### LABORATORY REPORT.

(See consolidated ward laboratory report.)

## PALO SECO LEPER ASYLUM.

Class.	Remaining Jan. 1.		Admit- ted.		Died.		Dis- charged.		Trans- ferred.		Remaining Dec. 31.	
	W.	С.	W.	C.	W.	С.	W.	C.	W.	C.	W.	C.
Employees	1 1	31 16	1			4 3		2 3		1 	2 1	28 17
Total	2	47	1	11		7		5		1	3	45

	White.	Colored.	Total.
Average number of days' treatment per employee for the year		90.00	90.00
ing the year		. 49	. 49 17, 759
Cost of subsistence per patient per day			\$0.327

### NATIONALITY.

Class.	Number	Amer	icans.	Other nations.	
	treated.	W.	C.	W.	С.
Employees. Pay patients. Charity patients. Total.	2 35 24 61			1 1 2	2 34 23 59

## TABOGA SANITARIUM.

Class.	Re- main- ing Jan, 1,	Ad- mitted.	Died.	Dis- charged.	Transferred.	Re- main- ing Dec. 31.
EmployeesFamilies of employees	39 21 60	2,380 1,140 3,520	1	2,358 1,149 3,507	26 3 29	34 9 43

Average number of days' treatment per employee for the year	6.57
Average number of employees constantly sick during the year	
Number of days' relief furnished patients	
Cost of subsistence per patient per day	<b>\$</b> 0.687

#### NATIONALITY.

Class.	Number treated.	Americans.	Other nations.
Employees. Families of employees.		1,711 1,130	708 31
Total	3,580	2,841	739

Note.—No colored patients treated at Taboga Sanitarium.

## SANTO TOMAS HOSPITAL.

Class.	Remain- ing Jan. 1.	Ad- mitted.	Died.	Dis- charged.	Trans- ferred.	Remaining Dec. 31.
Pay cases. Charity cases. Total.	29 269 298	1, 424 5, 490 6, 914	23 393 416	1,391 5,143 6,534		39 223 262

Average number of days' treatment per patient	14.44
A verage number of patients constantly sick.	274.15
Number of days' relief furnished patients	
Cost of subsistence per patient per day.	
Cost of subsistence per patient per day	DU. 249

#### NATIONALITY.

Class.	Number	Americans.		Other nations.	
	treated.	W.	C.	W.	С.
Pay cases	1,453 5,759			440 725	1,013 5,034
Total	7,212			1,165	6,047

#### OPERATIONS.

	Number.	Died.
Major	515 278	21
Total	793	21

#### DISPENSARY.

	White.	Colored.	Total.
Natives	1,904 530	3, 413 841	5, 31 <b>7</b> 1, 371
Total	2,434	4, 254	6,688

## BOARD OF HEALTH LABORATORY.

Bacteriological examinations of—		
Municipal water supplies		41
Water from springs		32
Milk		1
Cultures, various		3
Larvacide test.		1
Fluids and exudates		53
Blood cultures		368
Throat cultures (diphtheria suspects)		850
Cultures from autopsies		90
Cultures from autopsies		
Cultures from eye		7
Stools		354
Urine		310
Sputum		16
Pus		21
Stomach contents		10
Hydrocele fluid		4
Kneejoint fluid		15
Fluid from cyst		- 1
Spinal fluid. Various smears and specimens		40
Various empare and engainment	1	105
Dlamal Anid		
Pleural fluid		8
Cultures from frontal sinuses		3
Blood	* * * * * * * * * * * * * * * * * * * *	2
Tonsils		1
Fluid from sinus in kidney		ī
"Powdelac"		i
Tile in force about		
Fluid from chest		2
Culture from abscess on back		1
Scrapings from left femur		- 1
		1
Abdominal fluid		- 4
Fluid from homotomo	• • • • • • • • • • • • • • • • • • • •	_
Fluid from hematoma		1
Determinations of—		
Larvacidal value of commercial disinfectant		2
Quinine in ampules of quinine hydrochloride.		- 1
Examinations of—		
Leper suspects		13
Rabies suspects		3
Animals		14
"First aid packets"		4
Vomitus		- 1
Fluid from hog for anthrax		1
Plagua cuenante		$\hat{2}$
Plague suspects Tuberculin test of hospital dairy herd		
Tubercular test of hospital dairy herd		81
Chemical examinations of—		
Pyrocresol. Knife for police department.		- 1
Knife for police department		- 1
Coal		î
		î
Rosin		
Blood		1
Stomach contents		18
Bismuth subnitrate		- 1
Urine		51
Water		1
		î
Test meal		
Various liquids, fluids, etc		31
Various metals		6
Earth		1
Pyrethrum		1
Santonin powder		2
Hrinary adouble		1
Urinary calculus		
Hydrogen peroxide		1
Gastric contents		1
Insectide		1
Oil, crude		-1
Vomitus		-î
"Powdoloo"		1
"Powdelac".		
T nyinoi.		1
Thymol Toxicological examinations (police departmen	t)	2
Acetpheuetidin tablets		1
Bile		1

Agglutination reactions	210
Agglutination reactions. Autopsies.	638
Bodies embalmed	000
Bodies emparmed	3.9
Hydrophobia, preventive treatment	4
Medico-legal postmortems	7
Microscopical examinations bile	1
Microscopical examinations of stomach contents	1
Sections of tissue prepared, frozen	302
Sections of tissue prepared, paraffin	5.859
Standardizations of clinical thermometers	7
Surgical pathological tissue and neoplasms reported	321
Vaccinations, antipest	4
Vaccination for plague	1
Vaccination, smallpox	$\tilde{2}$
Vaccine iuoculations, antityphoid.	2
Vaccine treatment autogenous prepared	72
Vaccine treatment, autogenous, administered.	35
Vaccines, mixed	3
Water microscopical examination of	18
Water, microscopical examination of Water, sanitary analyses of	
water, sanitary analyses of	33
Wasserman reactions	2,835
Widal reactions.	97

## ISSUES OF QUININE.

Months.	Kilograms.	Pounds, avoirdu- pois.
January February March April May June July August September October November December	19.00 53.35 114.00 184.46 14.85 42.44 33.00 39.00 38.70 57.93 30.99 39.40	41. 89 117. 62 251. 32 407. 10 32. 74 93. 56 72. 75 85. 98 85. 32 127. 71 68. 32 86. 86
Total	667. 12 55. 59	1,471.17 122.60

## SANITATION—CITY OF PANAMA.

Anopheles brigade:	
Linear feet of ditches cleaned.	1, 708, 571
Linear feet of ditches dug	8,012
Square feet of weeds and grass cut and removed	4, 969, 400
Cesspools cleaned.	40
Wells filled	16
Cesspools filled	30
Cubic vards of earth used in filling cesspools, wells, and holes	2,049
Loads of grass removed and burned	3, 155
Disinfection brigade:	-,
Houses disinfected and fumigated for diphtheria	30
Houses disinfected and furnigated for tuberculosis	6
Houses disinfected and furnigated for chickenpox	1
Houses disinfected for cerebrospinal meningitis	2
Houses disinfected and furnigated for scarlet fever	1
Houses disinfected and furnigated for leprosy	1
Houses disinfected and furnigated for typhoid fever	8
Houses disinfected for poliomyelitis	7
Number of cubic feet disinfected and fumigated.	914,528
Number of rooms fumigated and disinfected	244
Houses fumigated for yellow fever	6

Material used:	
Larvacide	4,235
Destruction of rats:	-,
Number of rats caught and killed.	5,775
Average number of rat traps in use.  Inspection of houses and yards:	2,232
Houses and vards inspected.	1,284
Houses and yards inspected.  Persons notified to keep premises in good condition.	342
Warning notices complied with	427
Number of letters to alcalde requesting enforcement of sanitary rules	
and regulations	41)
molished	57
Number of yards cleaned	4,902
Loads of refuse removed from the city.	3,874
New buildings:  Number of plans submitted to health officer and approved	223
Number of permits granted for repairs to old buildings.	68
The second of principles of the second of th	55
\$ANITATION—COLON, CRISTOBAL, MOUNT HOPE,	TORO
POINT, MARGARITA POINT.	, 1010
· · · · · · · · · · · · · · · · · · ·	
Water and sewers:	150
Number of connections made during the year.  Total number of connections made to date.	156 923
Number of outstanding permits.	427
Number of houses in which extensions were made	60
Houses:	
Plans approved. Permits to repair issued.	157
Permits to occupy issued.	319 101
Temporary permits to occupy issued.	35
Temporary permits to occupy issued.  Number of houses in which defective plumbing fixtures were found	
and reported to superintendent of public works	776
Sanitation of Colon: Number of loads of yard garbage removed	5,971
Average number of cans of garbage removed daily	2, 137
Number of acres of vegetation removed	156
Number of acres of streets cleaned	6,731
Number of private properties cleaned Number of square yards of pools oiled.	1,009
Number of square yards of pools offed.  Number of mosquito breeding places found.	229,095 1,186
Number of water receptacles treated.	332, 093
Number of linear feet of ditches constructed	4,170
Number of linear feet of ditches maintained	207,010
Notice to abate nuisances served.	5,776
Number of nuisances abated. Number of buildings inspected.	3,888 56,312
Number of rats killed	623
Number of square yards of alleys cleaned Number of square yards of streets sprinkled	1,655,033
Number of square yards of streets sprinkled.	1,128,000
Number of fly breeding places found.  Sanitation of Cristobal:	707
Number of square yards of pools oiled.	45, 450
Number of water receptacles treated	51,910
Number of mosquito breeding places found	209
Number of mosquitoes killed in barracks.	9,902
Number of fly breeding places found	39
Number of square yards of pools oiled	427,175
Number of water recentacles treated	358, 150
Number of linear feet of ditches maintained.	205, 955
Number of mosquito breeding places found. Number of linear feet of ditches constructed.	$\frac{1,280}{30,463}$
Sanitation Toro Point:	00, 400
Number of square yards of pools oiled	415, 570
Number of water receptacles treated	101,040
Number of inosquito breeding places found.	592
Number of linear feet of ditches constructed Number of linear feet of ditches maintained.	14,127 101,000
Number of crab holes worked	52,310
Number of doses quinine tonic distributed	47, 463
Number of adult mosquitoes killed	9,059

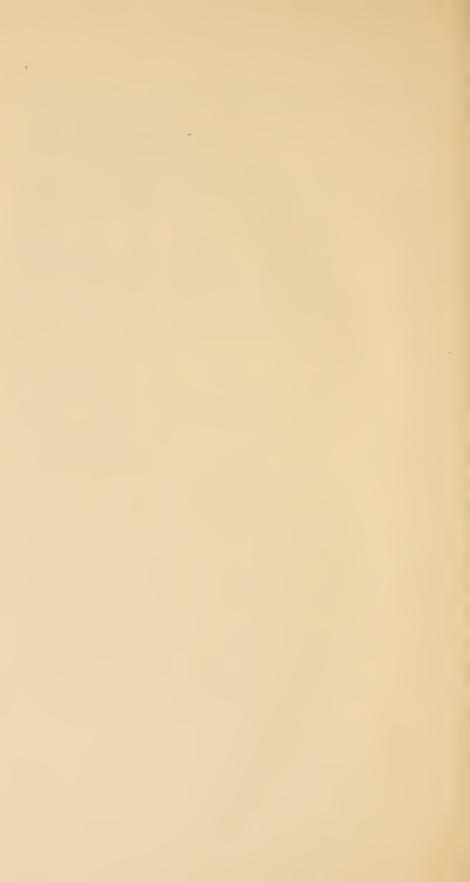
Sanitation of Margarita Point:	
Number of square yards of pools oiled.	2,125
Number of water receptacles treated. Number of mosquito breeding places found.	8,025 1
Number of linear feet of ditches maintained.	425
SANITATION—CANAL ZONE.	
SANTIATION—OANAL ZONE.	
Work requests on Quartermaster's Department:	800
Grass cutting. Screen repairing.	408
Miscellaneous.  Work requests on engineering department.	558 1,001
Work requests on other departments	71
Notice served for abatement of nuisances.  Arrests for violation of sanitary regulations.	2,671 $200$
Convictions.	181
Building permits approved Inspections of closets Inspections of stores	388 53,782
Inspections of stores Inspections of restaurants.	9,860 $2,641$
Inspections of shops	2,319
Garbage cans emptied. Closets disinfected.	2, 156, 821 157, 608
Houses disinfected	78
Houses furnigated. Rat traps used daily.	446
Water and sewer connections made.  Number of adult anopheles destroyed at houses.	39 $328,342$
Number of adult culiees destroyed at houses	276,664
Number of containers found with Stegomyia larvæ	<b>7</b> 23
Larvaeidegallons	126,677
Crude oil gallons. Rats destroyed gallons	672,889 9,616
	672,889 9,616
	672,889 9,616
Rats destroyed QUARANTINE SERVICE.	9,616
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL	9,616
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.	9,616
Rats destroyed  QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.	9,616  1,364 96 103
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of verse inspected.	9,616 1,364 96 103 44 122,016
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of verse inspected.	9,616 1,364 96 103 44 122,016
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of erew inspected.  Number of passengers inspected.  Total number of persons inspected.  Number of persons vaccinated at ports of arrival because of compulsory	9,616 1,364 96 103 44 122,016 71,916 193,932
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels detained in quarantine. Number of vessels fumigated on arrival. Number of vessels fumigated prior to departure. Number of erew inspected. Number of passengers inspected.  Total number of persons vaccinated at ports of arrival because of compulsory vaccination law.	9,616 1,364 96 103 44 122,016
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed Number of vessels detained in quarantine Number of vessels fumigated on arrival Number of vessels fumigated prior to departure. Number of erew inspected Number of passengers inspected Number of persons inspected Number of persons vaccinated at ports of arrival because of compulsory vaccination law Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels fumigated in quarantine. Number of vessels fumigated on arrival. Number of vessels fumigated prior to departure. Number of erew inspected. Number of passengers inspected. Total number of persons inspected. Number of persons vaccinated at ports of arrival because of compulsory vaccination law. Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law. Total number of persons vaccinated. Number of persons lield in quarantine at the detention stations to com-	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels furnigated on arrival.  Number of vessels furnigated prior to departure.  Number of erew inspected.  Total number of persons inspected.  Total number of persons vaccinated at ports of arrival because of compulsory vaccination law.  Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.  Total number of persons vaccinated.  Number of persons vaccinated.  Number of persons beld in quarantine at the detention stations to complete period of incubation of yellow fever or plague.	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed Number of vessels fumigated in quarantine Number of vessels fumigated on arrival Number of vessels fumigated prior to departure. Number of passengers inspected Number of passengers inspected Total number of persons inspected Number of persons vaccinated at ports of arrival because of compulsory vaccination law Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law Total number of persons vaccinated Number of persons beld in quarantine at the detention stations to complete period of incubation of yellow fever or plague. Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.	9,616  1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of erew inspected.  Number of passengers inspected.  Number of persons vaccinated at ports of arrival because of compulsory vaccination law.  Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.  Total number of persons ledd in quarantine at the detention stations to complete period of incubation of yellow fever or plague.  Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.  Total number of persons held in quarantine.  Number of persons landed from foreign ports:	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels detained in quarantine. Number of vessels fumigated on arrival. Number of vessels fumigated prior to departure. Number of erew inspected. Number of passengers inspected. Number of persons inspected. Number of persons vaceinated at ports of arrival because of compulsory vaceination law. Number of persons vaceinated at ports of departure or en route because of compulsory-vaceination law. Total number of persons vaceinated. Number of persons leld in quarantine at the detention stations to complete period of incubation of yellow fever or plague. Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague. Total number of persons held in quarantine. Number of persons landed from foreign ports: Cabin. 23,350	9,616  1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of passengers inspected.  Number of passengers inspected.  Number of persons vaccinated at ports of arrival because of compulsory vaccination law.  Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.  Total number of persons vaccinated.  Number of persons held in quarantine at the detention stations to complete period of incubation of yellow fever or plague.  Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.  Total number of persons held in quarantine.  Number of persons landed from foreign ports:  Cabin 23,350  Steerage 21,298	9,616  1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels detained in quarantine. Number of vessels fumigated on arrival. Number of vessels fumigated prior to departure. Number of erew inspected. Number of passengers inspected. Number of persons inspected. Number of persons vaccinated at ports of arrival because of compulsory vaccination law. Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law. Total number of persons vaccinated. Number of persons led in quarantine at the detention stations to complete period of incubation of yellow fever or plague. Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague. Total number of persons held in quarantine. Number of persons landed from foreign ports:  Cabin. 23,350 Steerage. 21,298	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486 19,808
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed.  Number of vessels detained in quarantine.  Number of vessels fumigated on arrival.  Number of vessels fumigated prior to departure.  Number of passengers inspected.  Number of passengers inspected.  Number of persons vaccinated at ports of arrival because of compulsory vaccination law.  Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.  Total number of persons vaccinated.  Number of persons held in quarantine at the detention stations to complete period of incubation of yellow fever or plague.  Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.  Total number of persons held in quarantine.  Number of persons landed from foreign ports:  Cabin 23,350  Steerage 21,298	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486 19,808 44,648
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels funigated in quarantine. Number of vessels funigated prior to departure. Number of vessels funigated prior to departure. Number of passengers inspected. Number of passengers inspected. Number of persons vaccinated at ports of arrival because of compulsory vaccination law.  Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law.  Total number of persons vaccinated. Number of persons held in quarantine at the detention stations to complete period of incubation of yellow fever or plague.  Number of persons held in quarantine on board vessels to complete period of incubation of vellow fever or plague.  Total number of persons held in quarantine. Number of persons landed from foreign ports:  Cabin.  23,350 Steerage. 21,298  Number of persons embarked for foreign ports:  Cabin. 24,919 Steerage. 19,911	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486 19,808
QUARANTINE SERVICE.  PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL  Number of vessels inspected and passed. Number of vessels detained in quarantine. Number of vessels fumigated on arrival. Number of vessels fumigated prior to departure. Number of erew inspected. Number of passengers inspected. Total number of persons inspected. Number of persons vaccinated at ports of arrival because of compulsory vaccination law. Number of persons vaccinated at ports of departure or en route because of compulsory-vaccination law. Total number of persons vaccinated. Number of persons leld in quarantine at the detention stations to complete period of incubation of yellow fever or plague. Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague. Total number of persons held in quarantine. Number of persons landed from foreign ports: Cabin. Steerage. 23,350 Steerage. 24,919 Steerage. 19,911	9,616 1,364 96 103 44 122,016 71,916 193,932 12,941 12,609 25,550 5,322 14,486 19,808 44,648

Number of persons embarked for coast towns on small craft. Apparent increase for the year from coast towns.  Total number of persons landed Total number of persons embarked. Excess over number embarked. Less number for Pacific ports. Total apparent decrease for the year Number of immigrants recommended for rejection Number of certificates issued to outgoing passengers. Number of persons refused certificates because of trachoma. Number of bills of health viséed.	28, 261 25, 518 2, 743 72, 909 70, 348 2, 561 3, 421 860 87 588 94 725 11, 466
BOCAS DEL TORO.	
Number of vessels inspected and passed.  Number of crew inspected and passed.  Number of passengers inspected and passed.  Number of passengers, in transit, inspected and passed.  Number of persons held to complete period of incubation of yellow fever.	375 17, 299 6, 737 4, 027 173
PERSONNEL REPORT.	
[Average number of employees at work during the year.]	
Chief sanitary office Property division Quarantine service Health office, Panama Health office, Colon Ancon Hospital Colon Hospital Santo Tomas Hospital Taboga Sanitarium Palo Seco Leper Asylum Zone sanitation. Dispensaries: Ancon Balboa Bas Obispo Corozal Cristobal Culebra Empire Gatun	40 9 40 51 115 532 193 5 24 15 243 6 3 8 12 11 15
Gorgona Las Cascadas Margarita Point Miraflores Naos Island Paraiso Pedro Miguel	9 7 1 7 2 5 5
Porto Bello	1 373
Total	1,010

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## HOSPITAL CASES OF MALARIA AMONG EMPLOYEES.

Months.	Disch	arged.	Die	ed.	Total eases.	Annual average per 1,000	Annual average per 1,000	Number of eni-
	W.	C.	W.	C.	Caron,	of deaths.	of eases.	ployees.
January	251	247	2		500	0.46	116	51,852
February	251	257	1	1	510	. 46	117	52,235
March	202	144			346		81	51,095
April	127	109		1	237	. 24	56	50,612
May	166	93			259	~~~	69	49,421
June	234	191	3		428	. 73	105 255	49,086
July		585 501	1	3	1,037 $919$	. 74	219	50,305
August		239	1	1	438	+40	103	50,948
September	151	149		1	301	.24	72	50, 103
November	130	141		1	272	. 23	62	52,539
December	162	213	1		376	. 22	84	53,810
Total	2.738	2,869	8	8	5,623	. 31	110	50, 893







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